Congress of the United States

Washington, DC 20515

November 8, 2004

New Scientific Consensus on Climate Change and Its Impacts: Arctic Climate Impact Assessment

Dear Colleague:

We are writing to draw your attention to the release today of the *Arctic Climate Impact Assessment* (ACIA)--a landmark climate change study with powerful economic, environmental, and policy implications worldwide. The assessment was conducted by the Arctic Coalition, a high-level committee of representatives from nations and indigenous people in the Arctic Circle (including the US), and the International Arctic Science Committee, and describes:

1) the acceleration and impacts of global warming on the Arctic region;
2) impacts over the course of the century if greenhouse-gas emissions are not significantly reduced ;
3) the consequences of Arctic warming for the rest of the planet.

The full report is available at *http://www.acia.uaf.edu/*.

The report concludes that human influences, resulting primarily from increased emissions of carbon dioxide and other greenhouse gases, have now become the dominant factor in climate change.

This report is the culmination of the US-led four-year study conducted by 300 scientists. It is intended to provide useful and reliable information to the governments, organizations and peoples of the Arctic and around the world on policy options to meet the challenges of climate change. **Key report findings include:**

1. There is strong evidence of recent warming in the Arctic including:
- Recent Arctic warming trends several times greater than the global average;
- Melting glaciers, thinning and contracting sea ice, rising sea levels;
- Melting permafrost;
- Increasing precipitation (winter rains) causing faster snowmelt and flash flooding.

2. Warming in the Arctic threatens the rest of the planet significantly through:
- Loss of reflection of sun's heat, thereby accelerating global warming through:
  - Loss of the reflective ice cap itself (whiteness of snow and ice reflects heat);
  - Increase in dark forested areas, over the lighter tundra, as tree lines move north;
  - Soot produced from the burning of fossil fuels transported to the Arctic and darkening of the bright white snow and ice surfaces;
- Disrupted ocean circulation that currently regulates world temperatures;
- Release of significant greenhouse gases trapped in Arctic soil and sea sediments;
- Sea level rise worldwide.

The information provided by the ACIA will be invaluable as Congress continues to craft policy to limit greenhouse gas emissions and as the Administration considers the economic and US policy impacts of the European Union emissions cap-and-trade program and the Kyoto protocol outside the US.

For more information, please contact Edith Thompson (Rep. Gilchrest) at 5-5311, Abbie Meador (Rep. Olver) at 5-5335, Bill Parsons (Rep. Van Hollen) at 5-5341, or Danielle Rosengarten (Rep. Shays) at 5-5541

Sincerely,

Wayne T. Gilchrest
Cochair, Congressional Climate Caucus

John W. Olver
Cochair, Congressional Climate Caucus

Chris Van Hollen

[illegible]